

tures rely upon basal body temperature charts, cervical mucus examination and previous menstrual history as guides. In some cases, hormone assays like rapid estradiol or luteinizing hormone have been of great use; even when all of these measures are used accurately, however, predicting the time of ovulation can be a significant clinical problem. Because the viable lifespan of a human ovum is 16 to 18 hours and preceding fertilization the sperm must undergo a four- to six-hour transformation termed capacitation, precise timing becomes critical.

This problem has been substantially eliminated in the past two years through in vitro fertilization programs and application of real-time ultrasound as a means of timing laparoscopic recovery of ova. Using a full-bladder technique, ovaries and their developing follicles can be readily defined in transverse and longitudinal planes. Follicular growth proceeds at a rate of 1 to 3 mm a day, with a rapid growth spurt possible some 24 to 36 hours before ovulation. Follicles are considered to be functionally mature when their maximal diameter is 18 mm or more. Follicles of this size will respond to ovulation doses of human chorionic gonadotropin (5,000 to 10,000 IU) within 12 to 36 hours after intramuscular injection.

Ultrasound used in this manner does not replace more conventional measures of impending ovulation, but it does hold the promise of better understanding of a given patient's ovarian response to natural or drug-induced signals. Completed studies suggest that its use increases pregnancy rates while shortening course of treatment.

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Changing Views on the Management of Vaginitis

THERE HAVE BEEN a number of significant advances in the treatment of infectious vaginitis in the past five years, not only through the introduction of new drugs but also by using existing drugs for new indications. In view of the fact that the three major types of vaginitis are all to some extent sexually transmitted, it is likely that the number of women seen with complaints referable to vaginitis will continue to increase.

The most common cause of infectious vaginitis is *Gardnerella vaginalis* vaginitis, previously called *Haemophilus vaginalis* vaginitis or nonspecific vaginitis. The infection is characterized by a profuse, homogeneous, adherent gray discharge that is associated with a "fishy" odor and a minimum of irritative symptoms. Although the laboratory diagnosis has relied on recognition of "clue cells" in the saline wet mount, another helpful diagnostic maneuver is the "odor" or "amine" test in which the odor of the discharge worsens upon adding 10% potassium hydroxide solution to the resi-

due on the posterior blade of the speculum. Treatment has traditionally consisted of topically applied sulfa creams or oral tetracycline, but it is now generally agreed that these measures are relatively ineffective and that the agent of choice is metronidazole, 500 mg given twice a day for seven days to both the patient and her partner. In patients in whom metronidazole is contraindicated (such as pregnant women), cephalexin or ampicillin, 500 mg given four times a day for seven days, are secondary drugs of choice. A contrary opinion was recently given by Robbie and Sweet when they reported their reservations regarding the extensive and repetitive use of metronidazole because of its possible mutagenicity and carcinogenicity when more innocuous methods are available. They suggest that local preparations or ampicillin be used as the treatment of choice and that metronidazole be reserved for initial treatment failures.

Women with monilial vaginitis usually have vaginal and vulvar itching and burning and a nonodorous white vaginal discharge. Diagnosis is made on the basis of identification of pseudohyphae on a 10% KOH slide or with a positive yeast culture. Nystatin, which had previously been the drug of choice, has now been replaced by the more effective synthetic imidazole fungicides, clotrimazole and miconazole nitrate, which are available as creams, vaginal tablets and suppositories. Although standard therapy consists of a daily application for seven days, a recent study has shown equivalent results with twice-a-day therapy for three days, thereby giving patients a choice of regimens.

Trichomonas vaginalis vaginitis presents as vaginal itching and burning in conjunction with a foul-smelling watery discharge. Diagnosis depends on the identification of motile trichomonads on saline wet prep or a positive Diamonds culture. The mainstay of treatment continues to be metronidazole, though recent studies have shown that a 2-gram single dose is as effective as the more standard seven-day course. Because of improved compliance and minimization of the duration of side effects, most authors consider the single-dose regimen, given to both patient and partner, to be the treatment of choice for vaginal trichomonas.

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Glucocorticoids and Lecithin-Sphingomyelin Ratio

THE ANTENATAL USE of glucocorticoids to prevent respiratory distress syndrome in premature infants has accelerated over the past several years. The rationale for their use is based on several studies done of humans and animals that have shown the following: (1) Exogenously administered steroids accelerate the normal pattern of lung development, including the accumula-